

Pressure switch Pressotronic

easyMont

BÜHLER
TECHNOLOGIES

Pressotronic

- Pressure range up to 600 bar (8700 psi)
- Compact design
- Up to four programmable switching outputs
- Analog output (current or voltage adjustable) plus one, two or four programmable outputs
- Switching output adjustable as window or hysteresis
- Two switching outputs adjustable as frequency output (1 to 100 Hz)

- Direct or external mounting of the display and control unit
- Almost any length of cable connection between measuring point and display
- Highly visible LED display indicates switching outputs, able to rotate 270° when directly mounted
- Menu structure based on VDMA guidelines
- Min/Max memory, logbook



Technical data

Pressure transmitter

pressure ranges

Pressotronic 700

0 - 10 bar
0 - 25 bar
0 - 100 bar
0 - 250 bar
0 - 400 bar
0 - 600 bar

other pressure ranges on request

pressure terminal

G ¼ male thread, DIN 3852 form E;
pressure tip orifice for standard ≥ 40 bar

overload

2,5 x final value at 10 to 600 bar (max. 900 bar)
higher values on request

burst pressure

2.5 x final value at 6 to 600 bar (max. 900 bar)
patented leakage stop system as prevention of liquid leakage
if the burst pressure range is passed
(>40 bar nominal pressure)

higher burst pressure on request

Material

housing material

1.4305

material with medium contact

ceramics, 1.4305, PPS, FPM

Temperature

medium

-15...+ 125°C

ambient temperature

max. 85°C

temperature influences

in the temperature range of - 40 to +125 °C

TK0 - Temperature zero point error

< $\pm 0.15\%$ FS/10 K < $\pm 0.25\%$ FS/10 K

TKE - Temperature max. value error

< $\pm 0.15\%$ FS/10 K < $\pm 0.15\%$ FS/10 K

response time

< 2 ms / typical 1 ms

supply voltage (U_b)

8 - 33 V DC
(nominal voltage 24 V DC)

output signal

4 - 20 mA

load Ω

= ($U_b - 8$ V) / 0.02 A

connector

connector base M12x1

protection class

IP67

dielectrical strength

500 V DC

weight

approx. 95 g

Accuracy

Parameter

Unit

Tolerance zero

max. % FS $\pm 0,3$

Tolerance full scale

max. % FS $\pm 0,3$

Resolution

% FS 0,1

Sum of linearity, hysteresis
and reproducibility

max. % FS $\pm 0,3$

Long term stability acc. to

DIN EN 60770

% FS $\pm 1,0$

TC zero

max. % FS/10K $\pm 0,15$

TC sensitivity

max. % FS/10K $\pm 0,15$

Test conditions: 25 °C, 45 % rh, supply 24 V DC
TK0/TKE -40 ... +125°C

Pressotronic 700

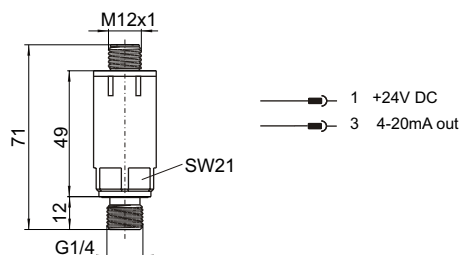
Pressure transmitter with M12 connector

Signal output 4-20 mA

Pin assignment M12x1 Connection

transmitter only

Part No.	Description	Pressure range
137000100	PT 700-010	0 - 10 bar
137000250	PT 700-025	0 - 25 bar
137001000	PT 700-100	0 - 100 bar
137002500	PT 700-250	0 - 250 bar
137004000	PT 700-400	0 - 400 bar
137006000	PT 700-600	0 - 600 bar



Accessories

Part-No. 4-pole Description

9144 05 0010	Connecting cable M12x1, 1,5 m, elbow connector (female) and straight connector (male)
9144 05 0046	Connecting cable M12x1, 3,0 m, elbow connector (female) and straight connector (male)
9144 05 0047	Connecting cable M12x1, 5,0 m, elbow connector (female) and wire

Technical data

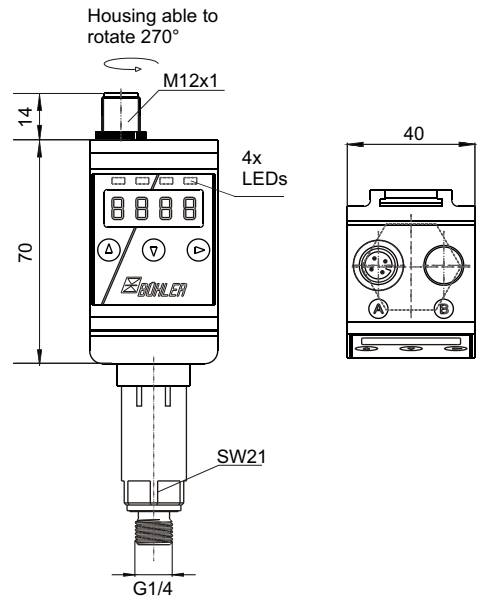
Pressotronik 771

Version with mounted transmitter

Pressure transmitter see page 2

Display

display 4 digit 7 segment LED display
 display range bar, MPa, psi
 accuracy 1%
 protection class IP65
 operation 3 button keypad
 Current consumption at power up approx. 100 mA for 100 ms
 operating current consumption approx. 50 mA
 supply voltage (U_B) 10 V to 30 V DC
 (nominal voltage 24 V DC)
 ambient temperature -20 °C to +70 °C
 weight approx. 500 g
 Mounting: G1/4 / mounted display able to Rotate 270°



Following output configurations are available:

Type	-2S	-4S	-1S-K	-2S-K	-4S-K
PNP transistor output	2 x	4 x	1 x	2 x	4 x
free programmable	yes	yes	yes	yes	yes
max. current per output	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A
contact load max.	1A	1A	1A	1A	1
Analogue output 1 x 4 - 20 mA	no	no	yes	yes	yes
2-10 V, 0-10 V or 0-5 V	-	-	(U _B -8V) / 0,02A	(U _B -8V) / 0,02A	(U _B -8V) / 0,02A
load Ω analogue output	-	-	M12 - 4 pol	M12 - 5 pol	M12 - 8 pol
connector (base)	M12 - 4 pol	M12 - 8 pol			

Product code for Pressotronik

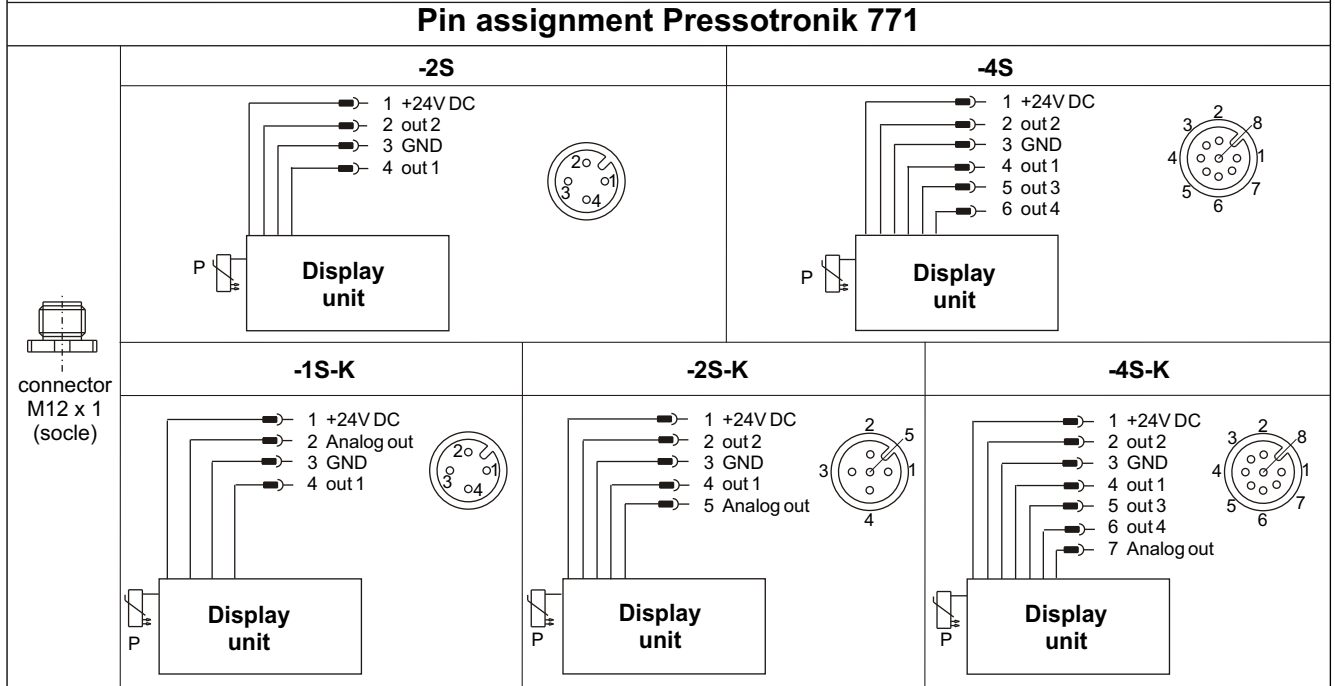
PT

Model	Description	Output
770	Transmitter with remote display	-2S: 2 x PNP output
771	Transmitter integrated display	-4S: 4 x PNP output
		-1S-K: 1 x PNP output / 1 x Analogue output
		-2S-K: 2 x PNP output / 1 x Analogue output
		-4S-K: 4 x PNP output / 1 x Analogue output

Pressure range only with PT771

010	0-10 bar
025	0-25 bar
100	0-100 bar
250	0-250 bar
400	0-400 bar
600	0-600 bar

Accessories see page 4



Technical data

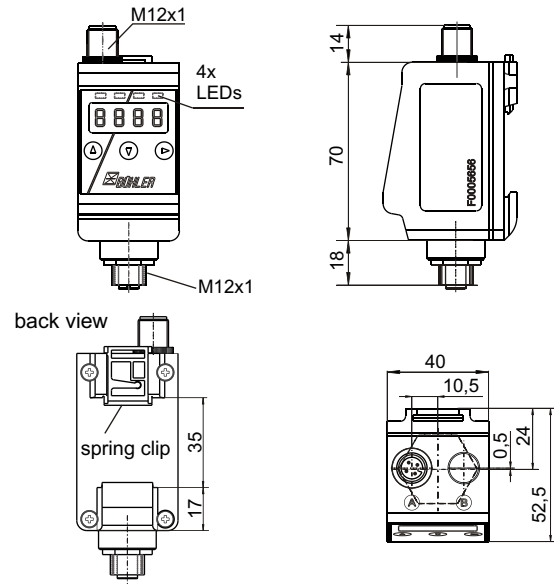
Pressotronik 770

Version with remote display

Pressure transmitter see page 2

Display

display 4 digit 7 segment LED display
 display range bar, MPa, psi
 accuracy 1%
 protection class IP65
 operation 3 button keypad
 current consumption at power up approx. 100 mA for 100 ms
 operating current consumption approx. 50 mA
 supply voltage (U_B) 10 V to 30 V DC
 (nominal voltage 24 V DC)
 Ambient temperature -20 °C to +70 °C
 input signal 4-20 mA
 weight approx. 400 g
 mounting: 35 mm top hat rail mounting

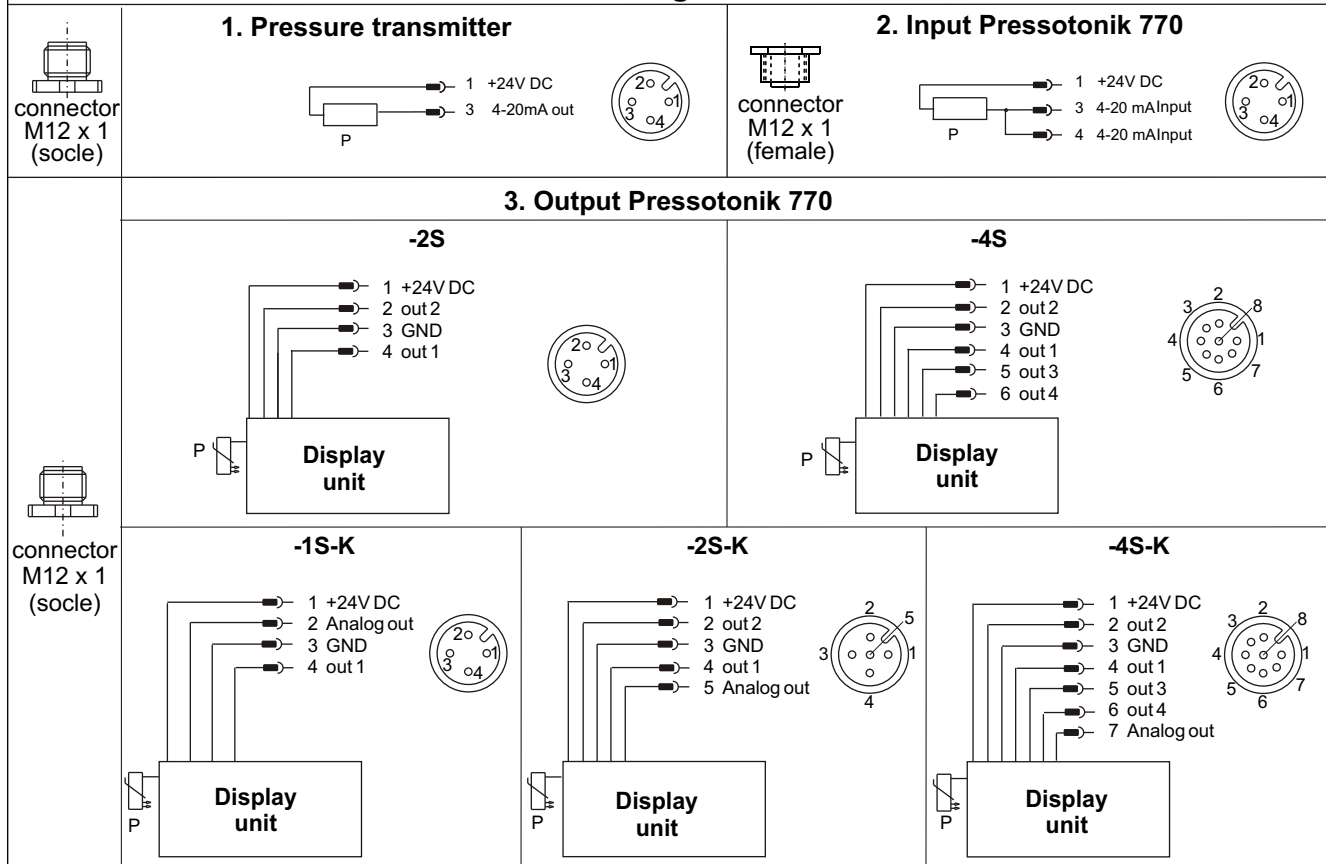


Following output configurations are available:

Type	-2S	-4S	-1S-K	-2S-K	-4S-K
PNP transistor output	2 x	4 x	1 x	2 x	4 x
free programmable	yes	yes	yes	yes	yes
Max. current per output	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A
contact load max.	1A	1A	1A	1A	1A
analogue output 1 x 4 - 20 mA	no	no	yes	yes	yes
2-10 V, 0-10 V or 0-5 V	-	-	(U _B -8V) / 0,02A	(U _B -8V) / 0,02A	(U _B -8V) / 0,02A
load Ω analogue output	-	-			
connector output (base)	M12 - 4 pol	M12 - 8 pol	M12 - 4 pol	M12 - 5 pol	M12 - 8 pol
connector input (female)	M12 - 4 pol	M12 - 4 pol	M12 - 4 pol	M12 - 4 pol	M12 - 4 pol

Product code see page 3

Pin assignment



Accessories

Part-No. 4-pole	Part-No. 5-pole	Part-No. 8-pole	Description
9144 05 0010	9144050016	9144 05 0048	Connecting cable M12x1, 1,5 m, elbow connector (female) and straight connector (male)
9144 05 0046	9144050017	9144 05 0049	Connecting cable M12x1, 3,0 m, elbow connector (female) and straight connector (male)
9144 05 0047	9144050018	9144 05 0033	Connecting cable M12x1, 5,0 m, elbow connector (female) and wire